

Dynamic FYA Start Delay

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Problem Statement

- Want ability to delay start of FYA only when opposing traffic is present
- Would also like to delay when conflicting ped is present (aka POOFYA)

Solution

- Custom logic (ASC/3)
- Native functionality (EOS)

FYA Start Delay Logic

- 3 logic statements per approach
- Delays start of FYA if opposing traffic is present
 - Can accommodate multiple lanes/detectors
- Yes/No operation
 - Dynamic operation also possible; more logic needed

Example:

```
LP#: 31  COPY FROM: 31  ACTIVE:M  FALSE
IF  DET                6    IS  ON    F
OR  DET                16   IS  ON    F
AND VEH RED ON PHASE    6    IS  ON    F
AND CTR PH NEXT ON PHS  6    IS  ON    F

THEN LP  SET LOGIC FLAG 15      ON

ELSE
```

```
LP#: 32  COPY FROM: 32  ACTIVE:M  FALSE
IF  LP FLAG            15   IS  ON    F

THEN OL  OMIT OVLP A-P    7      ON

ELSE
```

```
LP#: 33  COPY FROM: 33  ACTIVE:M  TRUE
IF  VEH GREEN ON PH     6    IS  ON    T
AND LP COB CODE OFF                    516  T

THEN LP  DELAY FOR          4.0 SECONDS
      LP  SET LOGIC FLAG 15      OFF

ELSE
```

FYA Start Delay + P00FYA Logic

- 4 logic statements per approach
- Delays start of FYA if opposing traffic is present OR if pedestrian phase has a call
- Delays call up to 6 seconds

Example: Wadena TH 71 / TH 10 (MnDOT District 3)

```
LP#: 21  COPY FROM: 21 ACTIVE:M  FALSE
IF  --F DET 7 IS ON F
OR  --F CTR PED CALL ON PH 2 IS ON F
AND --F VEH RED ON PHASE 2 IS ON F
AND --F CTR PH NEXT ON PHS 2 IS ON F

THEN LP SET LOGIC FLAG 13 ON

ELSE
```

```
LP#: 22  COPY FROM: 22 ACTIVE:M  FALSE
IF  --F LP FLAG 13 IS ON F

THEN OL OMIT OVLP A-P 5 ON

ELSE
```

```
LP#: 23  COPY FROM: 23 ACTIVE:M  TRUE
IF  --F VEH GREEN ON PH 2 IS ON T
AND --F DET 7 IS OFF T
AND --F PED ON PH WALK 2 IS OFF T
AND --F LP COB CODE OFF 512 T

THEN LP DELAY FOR 1.0 SECONDS
      LP SET LOGIC FLAG 13 OFF

ELSE
```

```
LP#: 24  COPY FROM: 24 ACTIVE:M  TRUE
IF  --F VEH GREEN ON PH 2 IS ON T
AND --F LP COB CODE OFF 512 T

THEN LP DELAY FOR 6.0 SECONDS
      LP SET LOGIC FLAG 13 OFF

ELSE
```

Example: Wadena TH 71 / TH 10 (MnDOT District 3)

```
LP#: 21  COPY FROM: 21 ACTIVE:M  FALSE
IF  --F DET 7 IS ON F
OR  --F CTR PED CALL ON PH 2 IS ON F
AND --F VEH RED ON PHASE 2 IS ON F
AND --F CTR PH NEXT ON PHS 2 IS ON F

THEN LP SET LOGIC FLAG 13 ON

ELSE
```

```
LP#: 22  COPY FROM: 22 ACTIVE:M  FALSE
IF  --F LP FLAG 13 IS ON F

THEN OL OMIT OVLP A-P 5 ON

ELSE
```

```
LP#: 23  COPY FROM: 23 ACTIVE:M  TRUE
IF  --F VEH GREEN ON PH 2 IS ON T
AND --F DET 7 IS OFF T
AND --F PED ON PH WALK 2 IS OFF T
AND --F LP COB CODE OFF 512 T

THEN LP DELAY FOR 1.0 SECONDS
LP SET LOGIC FLAG 13 OFF

ELSE
```

```
LP#: 24  COPY FROM: 24 ACTIVE:M
IF  --F VEH GREEN ON PH 2 IS ON
AND --F LP COB CODE OFF 512
AND --F PED ON PH WALK 2 IS OFF

THEN LP DELAY FOR 6.0 SECONDS
LP SET LOGIC FLAG 13 OFF

ELSE
```

Potential modification: